

REMARKS

Claims 1 – 3, and 5 – 22 are pending in the application and these same claims have been rejected in an Office Action dated September 12, 2007.

Claim Rejections 35 – U.S.C. § 103

Claim 1 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Evangelos Kotsakis, XSD: A Hierarchical Access Method for Indexing XML Schemata, Copyright 2002 (“Kotsakis”), in view of David Fallside, XML Schema Part 0: Primer, copyright May 2, 2001 (“Fallside”). Applicants submit that claim 1 patentably defines over Kotsakis in view of Fallside for at least the following reason. Applicants submit that Kotsakis fails to teach or suggest at least an inference engine that accepts an XML document as input, and generates a XML schema definition that defines the elements that appear in the XML document, and attributes associated with the elements. In the Office Action dated, the Examiner stated that the above referenced claim limitation is shown by the process of taking two DCSs and merging them into a generic XML schema. (Office Action at page 3). Applicants submit that the above referenced portion of claim 1 is patentably distinct from Kotsakis. Claim 1 as recited, is directed towards *generating* XML schemas by processing a XML documents by an inference engine to define the elements and attributes are in the XML documents. Kotsakis, on the other hand, *uses* XML schemas that are created in some undisclosed way to derive DCSs. (See, Kotsakis at page 175, “a primitive DCS is derived directly from a ... XML schema.”)(Emphasis added).

The resulting DCSs generated in Kotsakis are different than XML schemas. For example, in Kotsakis the DCSs is a structure obtained by merging one of more DCSs together and “the merger DCS contains the *union* of the elements in the simpler DCSs,” (*Id.* at 183), a union is merely a *set* of the elements in the merged DCSs, nothing is inferred about the schema. Claim 1 on the other hand discloses at least a XSD interface engine configured to “determine if [a] second XML document includes a second attribute associated with the first element and a second data type associated with the second attribute that is inconsistent with the first data type associated with the first attribute, and if so, the XSD inference engine is

further configured to modify the schema definition in the collection by changing the first inferred data type to a new inferred data type that is consistent with the first and second attributes.”

Applicants respectfully submit that Fallside fails to cure Kotsakis deficiencies. In the Office Action, the Examiner stated that Fallside “provides a validation technique using multiple purchase orders and updating elements based on a second international purchase order and redefining elements within a schema,” (Office Action at p. 4 as teaching “updating forms/structures of XML schema definitions.” (*Id.* at p. 4). Without conceding the propriety of the rejection, Applicants have amended claim 1 to clarify. Fallside discloses techniques that schema authors can use to compose schemas from constructions loaded in multiple documents, and create new types based on existing types. (Fallside at section 4, p. 13). The Examiner cited a first technique in the Office Action that teaches using an include element that can “bring in the definitions and declarations contained in [another schema file], and make them available as part of the [original schema] target namespace.” (*Id.* at section 4.1, p. 16). According to Fallside, “the include mechanism effectively adds these components to the existing target namespace.” (*Id.* at section 4.1, p. 16). Applicants submit that this fails to teach or suggest at least a XSD interface engine configured to “determine if [a] second XML document includes a second attribute associated with the first element and a second data type associated with the second attribute that is inconsistent with the first data type associated with the first attribute, and if so, the XSD inference engine is further configured to modify the schema definition in the collection by changing the first inferred data type to a new inferred data type that is consistent with the first and second attributes.”

The Examiner additionally cited another technique that a schema developer can use in Fallside. This technique a redefine mechanism that “enables *you* to redefine simple and complex types, groups, and attribute groups that are obtained from external schema files.” (*Id.* at section 4.5, p. 21)(Emphasis added). Applicants submit that this fails to teach or suggest an inference engine configured to infer anything about a XML schema similar to the system of claim 1. Additionally, Applicants submit that this portion of Fallside fails to teach or suggest at least a XSD interface engine configured to “determine if [a] second XML document includes a second attribute associated with the first element and a second data type associated with the second attribute that is inconsistent with the first data type associated with

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the first attribute, and if so, the XSD inference engine is further configured to modify the schema definition in the collection by changing the first inferred data type to a new inferred data type that is consistent with the first and second attributes.”

Independent claims 7 and 21 recite similar elements to that of claim 1 and patentably define over Kotsakis in view of Fallside for at least similar reasons as claim 1. Accordingly, Applicants respectfully request that claims 7, and 21 be placed in condition for allowance.

Insomuch as claims 2, 3, 5, 6, 8 – 20, and 22 depend directly, or indirectly from claim 1, 7, or claim 21 they too patentably define over Kotsakis in view of Fallside. Accordingly, Applicants respectfully request that claims 2,3, 5,6, 8 – 20, and 22 be placed in condition for allowance.

CONCLUSION

Applicants respectfully request that the Examiner issue a Notice of Allowance of all claims.

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